99515

April-11-13 7:46:14 AM

Work Order ID 99515

Required Date: 4/25/13

Item ID: D4093-5

Revision ID:

Item Name:

Start Date:

Bracket

4/11/13

Start Oty: Req'd Qty: 10

N900040100

Setup Start

Cust Item ID:

Customer:

Tool ID

Reference:

Approvals:

Process Plan: MCJ Date: 13-04-11 Tooling:

Date:____ SPC (Y/N):

Set Up/

0.00

0.00

Run Hours

Accept

Date: Date:

Tool # Plan

Code

Run

Reject

Qty

Insp.

Stamp

Reject

Number

Sequence ID/ Work Center ID

Operation Description **Revision Nbr**

Draw Nbr D4093 D

100

100

Waterjet FLOW CNC Waterjet Memo

CUT AS PER DWG

PROG REV:

DEBURR

110

QC2- Inspect parts off machine FAI/FAIB

0.00

110

QC

Memo

Accept

Qty

Quality Control

0.00

NCR:	Yes	1	No
11011.	, ,	,	110

Date:

NCR: Ye	CR: Yes / No WORK ORDER NON-CONFORMANCE / UPDATE										
									QA Closed:	Date:	
Work Order	·:				DISPOSITION			AGAINST DE	PARTMENT	/PROCESS	
Part No	D				Rework Scrap		Skid-tube Machining	Crosstube Small Fab	Pro	Water Jet d. Eng. Coor.	Engineering Quality
NCR No	0				Use-as-is Work Order Update	<u> </u>				re/Packaging Supplier	Other
Root				Descri	ption of work order update	Initial	Ac	ction	Sign &		
Cause	Date	Step	Qty		or Non-conformance	Chief En	g Desc	cription	Date	Verification	QC Inspector
oc/Data											
quip/Tooling						<u> </u>				1	
perator							•				
/laterial	_										
etup											
Other											
rocess											
upplier						:					
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Inapproved		<u> </u>				<u> </u>			<u> </u>		
					F	AULT CAT	EGORY				
Landin	g Gear			_	General		•	_	-		-
	Bending				Bend	Grain			Ovalized		Pressure/Forced
L	Centre No	ot Conce	ntric to (o/s	」BOM/Route	Hardw	/are	ļ	Over/Under	tolerance	Temperature/Cure
L	Cracks				Broken/Damaged	inspec	tion Incomplete	<u> </u>	Part Incorre	ct	Weld
	Crushed/	Crimped			Burrs	Instru	ctions Incomplete/	/Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled
	Cuffs				Contamination	Main	tenance		Part Moved		
	Heat Trea	at			Countersink	Mislat	eled		Positioned V	Vrong	_
Γ	Inspectio	n Strip in	Tube		Cut Too Short	Misre	ad		Power Loss/	Surge	Other
	Ripples ir	n Bend			Drill Holes	Offset					
ſ	Torque V	Vaves in 8	Extrusio	n [Drawing	Out of	Calibration				
Ī	Turning S				Finish	Out o	Sequence				
Ī	Wave/Tw	vist in Tul	be		Folio	Outsid	le Dimensions				

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

April-11-13 7:46:14 AM

Item ID: Revision ID: Item Name:	D4093-5 Bracket			Accept	*N90(1040	1100	ገ* ፡	Setup Star Stop	I	S1* S2*	
Start Date: Required Date: Reference:	4/11/13 4/25/13	Start Qty: 10.00 Req'd Qty: 10.00	*1(*1(Cust Item Customer					IVI		
Approvals:	Process P	lan:	Date:	Tooling:		Date:		I	Run Star	!//	R1*	
	QC:		Date:]	Date:			Stop	*N	R2*	
Sequence ID/ Work Center II 120 *120**)	Operation Description QC8- Inspect parts - secon	nd check	Set Up/ Run Hours 0.00	Tool ID	Tool#	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp	
Quality Control		Memo										
*130				0.00				/>			9	
Small Fab Small Fab		Memo C' SINK AS F	ER DWG	0.00				DX.				3/03
140 * 4 4 0 *		QC5- Inspect part complet	eness to step on W/C	0.00	, ·e			'n				
140 QC Quality Control		Memo		0.00	5 e)			1)				

												DQA:	Da	ate:	
NCR:	Yes /	No				WORK ORDER NON-		NFOR	MANCE / UP	DATE					
			-								(QA Closed:	Da	ate:	·
Work Orde	or.					DISPOSITION				AGAINST D	EP.	ARTMENT	PROCESS		
Work Orac						Rework	1		Skid-tube	Crosstube	٦		Water Jet	:[Engineering
Part N	No.					Scrap	1	1	Machining	Small Fab	1	Proc	d. Eng. Coor.	-	Quality
		""""				Use-as-is	1		noforming	Finishing	1		e/Packaging	-	Other
NCR N	No.					Work Order Update	1		Large Fab	Composite	٦		Supplier	·	
					-			<u> </u>							
Root					Descri	ption of work order update		Initial	Ac	tion		Sign &			
Cause	L	Date	Step	Qty		or Non-conformance	Cr	nief Eng	Desc	ription	\perp	Date	Verification	'n	QC Inspector
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1	1 Tu.	aat Troa	+		[Countersink	1	Mislahe	haled	1	10	Positioned W	/rong		

Misread

Out of Calibration

Out of Sequence

Outside Dimensions

Offset

Power Loss/Surge

Other

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Inspection Strip in Tube

Torque Waves in Extrusion

Cut Too Short

Drill Holes

Drawing

Finish Folio

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Packaging

Packaging

April-11-13 7:46:14 AM Item ID: D4093-5 Accept *N900040100* Setup Start **Revision ID:** Item Name: Bracket **Start Qty: 10.00** *10* **Start Date:** 4/11/13 **Cust Item ID:** Required Date: 4/25/13 Req'd Qty: 10.00 *10* **Customer:** Reference: Run Process Plan: Date: Approvals: **Tooling:** Date: SPC (Y/N): Date: Date: Sequence ID/ Operation Set Up/ Tool ID Tool # Plan Reject Accept Reject Insp. **Work Center ID Description Run Hours** Code Qty Stamp Qty Number 150 Chemical Conversion Coat per QSI005 4.1 0.00 *150* HandFinish 0.00 Memo Hand Finishing 160 QC7-Inspect Chemical Conversion Coat *160* 13.53 QC Memo Quality Control Identify as per dwg & Stock Location: 180 *120*

0.00

Memo

											DQA:	Date	;
NCR: Y	es /	No				WORK ORDER NON-	CON	1FORN	MANCE / UP	DATE	0465		
					_				. : .		QA Closed:	Date	:
Work Orde	r·					DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
VOIN OIGE	``—					Rework	7 I		Skid-tube	Crosstube	7	Water Jet	Engineering
Part N	ο.					Scrap	1		Machining	Small Fab	Pro	d. Eng. Coor.	Quality
						Use-as-is]	Therm	noforming	Finishing	Rec/Sto	e/Packaging	Other
NCR N	o					Work Order Update]		Large Fab	Composite		Supplier	
										 	T 6: 0		
Root			<u>.</u>	<u> </u>		iption of work order update		nitial	Act		Sign &	Verification	OC Inchestor
Cause	+	Date	Step	Qty		or Non-conformance	Ch	ief Eng	Descr	iption	Date	verification	QC Inspector
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ļ.		ending				Bend	-	Grain		<u> </u>	Ovalized		Pressure/Forced
1			t Concer	ntric to (^{O/S} -	BOM/Route	Н	Hardwa		<u> </u>	Over/Under	-	Temperature/Cure
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}			ı 1 Strip in	Tube	-	Cut Too Short	Н	Misread		F	Power Loss/	_	Other
ŀ	_	pples in		· ubc		Drill Holes	H	Offset	-	L_	٦. ٥٥، دهم،		1
	_	• •	aves in E	xtrusio	, -	Drawing	H	}	Calibration				
}		•	equence			Finish	-	ł	Sequence				
	_		ist in Tub	e		Folio		Outside	Dimensions				

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99515

Page 4

April-11-13 7:46:14 AM

Quality Control

Item ID: D4093-5 Accept *N900040100* Setup Start **Revision ID:** Item Name: Bracket **Start Date:** Start Qty: 10.00 4/11/13 **Cust Item ID:** Required Date: 4/25/13 Req'd Qty: 10.00 **Customer:** Reference: Run Process Plan: Approvals: Date: Tooling: Date: QC: Date: SPC (Y/N): Date: Sequence ID/ Operation Set Up/ Tool ID Tool # Plan Accept Reject Reject Insp. **Work Center ID** Description **Run Hours** Code Qty Qty Number Stamp 190 QC21- Final Inspection - Work Order Release 0.00 *190* QC 0.00 Memo

\$13087

										DQA:	Date			
NCR: Y	es / No				WORK ORDER NON-	COI	NFORI	MANCE / UPI	DATE					
										QA Closed:	Date			
Work Orde	r:				DISPOSITION				AGAINST DEPARTMENT/PROCESS					
Part N	o				Rework Scrap Use-as-is		Thern	Skid-tube Machining noforming	Crosstube Small Fab Finishing	_	Water Jet d. Eng. Coor. re/Packaging	Engineering Quality Other		
NCR N	0.				Work Order Update	╛╽		Large Fab	Composite	_	Supplier	ا لـا لــــــــــــــــــــــــــــــــ		
Root		1		Descri	ption of work order update		nitial	Act	rion	Sign &				
Cause	Date	Step	Qty		or Non-conformance	Ch	ief Eng	Descr	ription	Date	Verification	QC Inspector		
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upplier		1				1		ĺ						
raining	_													
Inapproved		1				1	TCATE	CORY		<u> </u>		<u> </u>		
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Landin	g Gear Bending				Bend		Grain		_	Ovalized	_	Pressure/Forced		
ŀ	→	lot Conce	ntric to (_{1/s}	BOM/Route	-	Hardwa	ıre	 	Over/Under	tolerance	Temperature/Cure		
. 1	Cracks	iot conce	nuic to t	"³	Broken/Damaged	\vdash	ł	ion Incomplete	 	Part Incorred		Weld		
ŀ		/Crimped			Burrs	-	1	ions Incomplete/U	Inclear	Part Lost/Mi		Wrong Stock Pulled		
	Cuffs	, c. mpeu		-	Contamination	-	Mainte		-	Part Moved]		
Ì	Heat Tre	at		<u> </u>	Countersink	\vdash	Mislabe			Positioned W	/rong			
ţ		on Strip in	Tube		Cut Too Short		Misread			Power Loss/		Other		
ľ	Ripples i	-			Drill Holes	_	Offset			. ·		•		
Ī	⊣	Waves in E	Extrusion	1	Drawing		Out of	Calibration						
		Sequence		[-	Finish		Out of !	Sequence						
Ī	Wave/T	wist in Tul	be		Folio		Outside	Dimensions						

Picklist Print

April-11-13 7:46:18 AM

Work Order ID: 99515

Parent Item:

D4093-5

Parent Item Name: Bracket

99515

D4093-5

Start Date: 4/11/13

Required Date: 4/25/13

Page 1

Start Qty: 10.00

Required Qty: 10.00

Comments:

IPP REV:A NEW ISSUE 10-10-01 JLM VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6S.188		Purchased	No			100	sf	57.8000	0.025	0.263158	Λ		
M6061T6	S 188								**		· //	13·15	. 07

6061-T6 .188 Sheet

Location Loc Qty Loc Code MAT021 57.8 57.8 124572

NCR:	NCR: Yes / No WORK ORDER NON-CONFORMANCE / UPDATE												
											QA Closed:	Date	<u>:</u>
Work Orde	er: _					DISPOSITION Rework	7		Skid-tube	AGAINST DE	PARTMENT		7
Part I	-					Scrap Machining Small Fab Use-as-is Thermoforming Finishing Work Order Update Large Fab Composite			Finishing	ł	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other	
Root					Descri	ption of work order update	1	Initial	Act	tion	Sign &		
Cause		Date	Step	Qty	1	or Non-conformance	Ct	nief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data													
Equip/Tooling	П												
Operator													
Material	П												
Setup													
Other	П								•				
Process													
Supplier	П											:	
Training	П												
Unapproved	П												
							FAUI	LT CATE	GORY				
Landi	ng G	iear		,	• <u></u>	General					-	_	-
		Bending				Bend		Grain		<u> </u>	Ovalized	L	Pressure/Forced
		Centre N	ot Conce	ntric to	o/s	BOM/Route		Hardwa	are		Over/Under	tolerance	Temperature/Cure
		Cracks				Broken/Damaged	L	Inspect	ion Incomplete		Part Incorre	ct _	Weld
		Crushed/	Crimped			Burrs		Instruct	tions Incomplete/	Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled
		Cuffs				Contamination		Mainte	enance		Part Moved		
		Heat Trea	at			Countersink		Mislabe	eled		Positioned V	Vrong	_
		Inspectio	n Strip in	Tube		Cut Too Short		Misread	d		Power Loss/	Surge	Other
		Ripples in	n Bend			Drill Holes		Offset					
ĺ		Torque V	Vaves in I	Extrusio	n [Drawing		Out of	Calibration				

Out of Sequence

Outside Dimensions

DQA:

Date:

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Turning Sequence

Wave/Twist in Tube

Finish

Folio

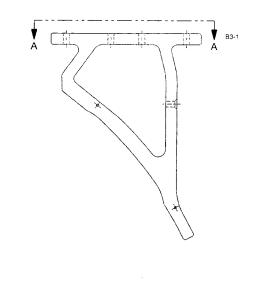
DART AEROSPACE LTD	Work Order:	99515
Description: Bracket	Part Number:	D4093-5
Inspection Dwg: D4093 Rev: B D		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

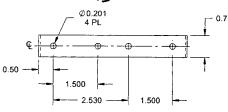
Drawing	Tolerance	Actual	Accept	Reject	Method of	Comments
Dimension		Dimension			Inspection	
Ø0.201	+0.005/-0.001	0.702			V	JKM-01
0.38	+/-0.030	0.382	1		V	
0.75	+/-0.030	0.382			u/	
4.64	+/-0.030	4.641	V		V	
3.889	+/-0.010	3.879	1		V	
0.188	+/-0.010	3.879 0.186	V		V	
1 000	1300					
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						-
			23			

Measured by:	MM	Audited by:	376	Preliminary Approval:	
Date:	13.03 30	Date:	13430	Date:	

Rev	Date	Change	Revised by	Approved
A	10.10.07	New Issue	KJ 10	
В	11.07.26	Dwg Rev updated	KJ de	
			7	1-4-2



A 10 1 2 1 2 1 5 1. 28 (0) TNO STORY OF Uncontrol Child Cory ए जालाकार व आहार Viere Conce 199515 MC5 13-04-11 Ø0.201 4 PL



SECTION VIEW A-A D6-1



NOTES:
1) MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR
PER QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4117/4128/4115/4116)
OR ASTM B211 OR ASTM B221
OR 6061-T6/T62 ALUMINUM SHEET
PER QQ-A-250/11 OR AMS-QQ-A-250/11
OR AMS 4025 OR AMS 4027
OR ASTM B209
REF DART SPEC. M6061T6B/M6061T6S
2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX 6) IDENTIFICATION: NONE

D4093-1 BRACKET

DESIGN	N RE DART AFROCRAC		A 211 3	INIC	
REV.	DESCRIPTION			BY	DATE
Α	NEW ISSUE			RF	10.09.16
В	REDRAWN D4093-1/-3 (ZN B4-1, B4-2)		RF	11.01.31	
С	REDRAW NOTES (/N D4093-1/-3 ZN A8-1, A8-3,	(ZN 84-1, B4-2); ADD MATERIAL A8-5)	RF	11.07.27
D	ADD Ø0.080 HOLES (ZN B5-2, B5-4)			RF	12.09.18

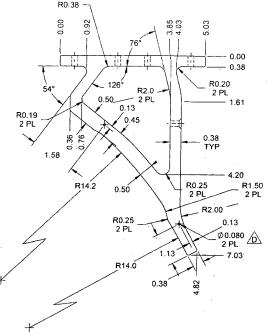
DESIGN	RF	DART AEROSPA	CEUSA, INC.	
DRAWN	RF	KENT, WA		+
CHECKED	8	DRAWING NO.	REV. D	
MFG. APPR.	AN	□ D4093	SHEET 1 OF 5	
APPROVED	di	TITLE	SCALE	
DE APPR		BRACKET	NTS	

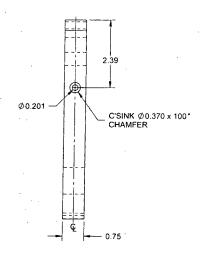
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7) WEIGHT: 0.55 lbs





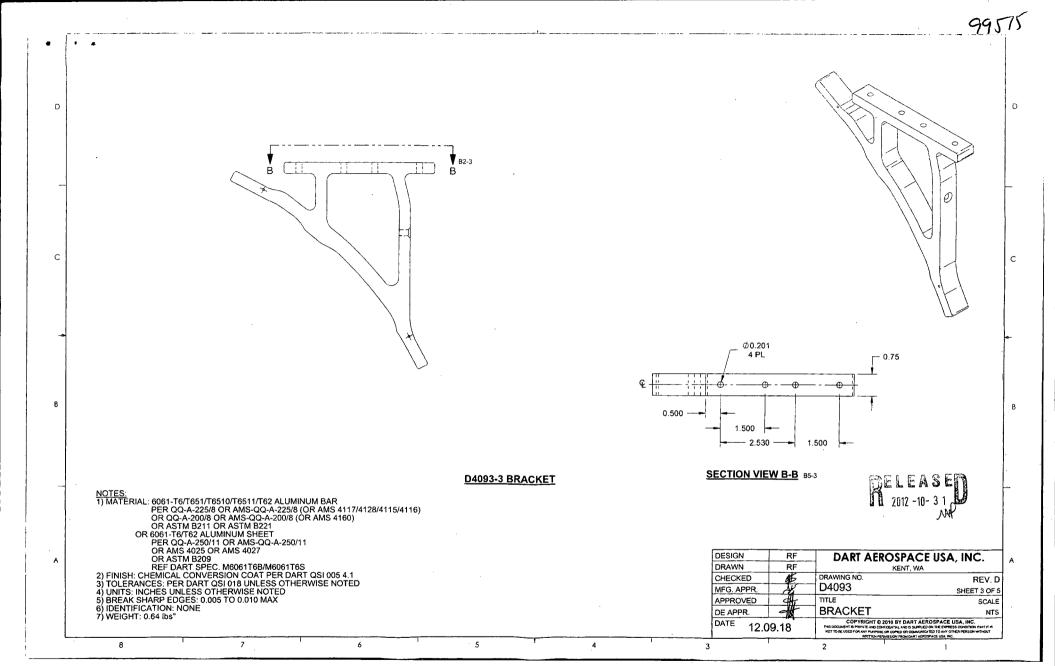
D4093-1 BRACKET

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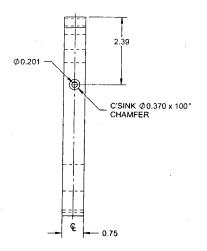
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3



R0.19 -0.13 R0.25 3 PL R2.0 2 PL R0.20 2 PL 1.41/ 1.13 R0.50 0.38 TYP 0.50 R14.0 R1.50 4 PL R0.25 _/ R2.0 -R14.2 0.13 0.38

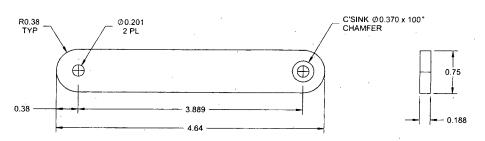
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D4093-3 BRACKET

DESIGN	RF	DART AEROSPA	CE USA, INC.	
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APPROVED	de	TITLE	SCALE	
DE APPR.	4	BRACKET	NTS.	
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D4093-5 BRACKET

NOTES:
1) MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR
PER QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)
OR ASTM B211 OR ASTM B221
OR 6061-T6/T62 ALUMINUM SHEET
PER QQ-A-250/11 OR AMS-QQ-A-250/11
OR AMS 4025 OR AMS 4027
OR ASTM B209
OR ASTM B209
2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION; NONE
7) WEIGHT: 0.06 lbs

С



DESIGN	RF	DART AEROSPACE USA, INC.		
DRAWN	RF	KENT, I		
CHECKED	1	DRAWING NO.	REV. D	
MFG. APPR.	J.	D4093	SHEET 5 OF 5	
APPROVED	dl-	TITLE	SCALE	
DE APPR.		BRACKET	NTS	
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